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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,877	11/04/2003	Chien Yi Liu	MR1683-510	3498

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EXAMINER

KOSSON, ROSANNE

ART UNIT PAPER NUMBER

1651

DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/699,877

Applicant(s)

LIU, CHIEN YI

Examiner

Rosanne Kosson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7 are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors, rendering Applicant's intended meaning of the claims unclear. Further, the term "extomopathogenic fungi" in claims 1-7 does not appear to be a term of art or to have a standard definition, and it is not defined in the specification. Thus, a holding of indefiniteness is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stimac et al. (U.S. 6,280,723) in view of Mitchell et al. (U.S. 4,873,112). Stimac discloses a method of making a dry powder that is a fungal-based entomopathogenic composition comprising spores of the fungus *Beauveria bassiana*. The fungus is incubated with sterile rice, and, when the surface of the rice is covered with the fungus,

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the mixture is dried at a temperature of 0-20°C. The fungus is then separated from the rice by sieving and mixed with a powder such as cornstarch. The fungus-powder mixture can be applied to nests, traps and other locations where the insects live. This mixture can be packaged for storage (see column 5, line 41, to column 6, line 25, and column 6, lines 36-52). Other fungi that are known to act as insecticides include *Metarhizium anisopliae* (see column 3, line 59, to column 4, line 16).

Stimac does not disclose adding the powder before removing the rice or the moisture content of the spores. Although the moisture content of the fungal spores of Stimac is not indicated, the dried spores remain viable and effective when they are applied to insects. The determination of a suitable moisture content of the spores would, therefore, have been considered a parameter which would have been routinely optimized by one of ordinary skill in the art of preparing dried fungal spores. Moreover, with respect to the addition of powder to the spores before separation from the rice, based on Stimac's disclosure of the importance of adding powder to the spores, the artisan of ordinary skill would have recognized that the powder would have been desirably added to the spores before or after removal from the rice. The claimed addition of powder to the spores before separation from the rice clearly meets Stimac's objective of combining the spores and the powder. Thus, the claimed variations in Applicant's process with respect to these parameters clearly would have been obvious at the time of Applicant's invention, the optimization of these parameters being well within the capabilities of one of ordinary skill in the art at the time of Applicant's invention.

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Stimac also does not disclose combining maltodextrin, which is an α -amylase hydrolysis product of cornstarch, with the fungal spores. Mitchell, however, discloses that maltodextrin, prepared from starch, is a very good drying agent (see column 8, lines 16-41). A drying agent, such as cornstarch or talc, as disclosed by Stimac, functions in keeping the insecticide powder stable and in a form that can be easily handled (see column 6, lines 5-21). Thus, one of ordinary skill in the art at the time that the invention was made would have recognized that the method of Stimac for preparing a fungal-based insecticide powder would have been modified by substituting maltodextrin for cornstarch because of the superior drying properties of maltodextrin, as disclosed by Mitchell. Because it would have been obvious to the artisan of ordinary skill to use maltodextrin instead of cornstarch for the advantages disclosed in Mitchell, a holding of obviousness is required.

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rosanne Kosson whose telephone number is 571-272-2923. The examiner can normally be reached on Monday-Friday, 8:30-6:00, with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rosanne Kosson
Examiner
Art Unit 1651

rk
2004-08-06



FRANCISCO PRATS
PRIMARY EXAMINER